

PROTOCOLS FOR LARGE SCALE BIOASSESSMENTS USING MACROINVERTEBRATES IN AUSTRALIA

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The Australian federal government sponsored the National River Health Initiative in 1994 that included macroinvertebrate sampling as part of an integrated assessment strategy. A national protocol (AUSRIVAS) was developed but included enough flexibility to allow states to determine their own specific needs. For example, standard sample collection methods, site selection and taxonomic resolution were used but states used live sort or lab sort strategies. There were over 1500 reference sites and 6000 assessment sites sampled during 10 years yet the program no longer receives federal funding. Subsequently, individual state programs have evolved according to jurisdictional requirements. Generally, Australian, state and regional assessment programs direct the available funding and this influences the protocol selection. Factors affecting program design include the use of site based data for regional assessments, and the funding agenda e.g. bioassessment, Inventory, biodiversity, or targeted impact targeted monitoring. A large multi-jurisdictional program, the Sustainable Rivers Audit, run by a federal government agency, the Murray Darling Basin Authority, provides an example of how macroinvertebrate assessments from five states and one territory are currently used in an integrated assessment program.